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To provide suitable future facilities, junior college personnel and architects need to increase research efforts in space use, site selection and development, the kind and number of facilities needed for the average college, evaluation of existing facilities, plant management and maintenance, and ways of incorporating innovative educational techniques into the facilities. This review assembles publications on various aspects of facility planning. Although few of them are truly research documents, they describe the planning process used by architects and educators. There is a trend toward simplicity in the design of buildings, although variety in the types of buildings has increased. If the number of colleges grows as prophesied, architects and administrators will have to work more wisely and effectively throughout the planning and building phase. (HH)

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PLANNING JUNIOR COLLEGE FACILITIES

With new junior colleges opening at the rate of more than one a week (ED 017 249), and with one-fourth to one-third of all existing facilities being inadequate (ED 015 718), the task of planning physical facilities for junior colleges has become increasingly urgent. As enrollments continue to grow, the expansion of existing facilities will continue to receive top priority in the junior college.

Educational planners have a number of sources for information on physical facilities, including the Acoustical Materials Association, the American Institute of Architects, the American Society of Heating, Refrigerating and Air-Conditioning Engineers, the Athletic Institute, the Community College Planning Center, the Educational Facilities Laboratories, the Illuminating Engineering Society, and the School Planning Laboratory. Several professional organizations, such as the American Association of Junior Colleges, the American Council on Education, the National Association of Women Deans and Counselors, and the National Education Association, as well as the U. S. Office of Education, have contributed significantly to this field.

Junior colleges themselves have conducted studies and reported efforts relating to this subject. Most of the reports listed in *Research in Education* have been processed for ERIC by the Clearinghouse on Educational Facilities (Madison, Wisconsin); others have been handled by the Clearinghouse for Junior College Information.

This issue of the *Junior College Research Review* explores a few of the factors to be considered in planning junior college facilities and some of the general guidelines that have been developed. Examples of junior college facilities and certain innovative features have been included. All documents cited in this report have been processed by the Junior College Clearinghouse. Unless otherwise noted in the bibliography, copies of each study may be obtained from the ERIC Document Reproduction Service, as described on page four.

In this review, the term *facility* means "... any specific space ... necessary for the service and operation of the educational program" (ED 022 444). Indoor and outdoor areas, including the buildings and the general site of the campus, are implied in this definition.

Initial Planning

Two of the more comprehensive reports on planning were written or edited by B. Lamar Johnson in 1964. One (ED 011 772) is based on visits to more than 40 newly established junior colleges. It includes general guidelines, six areas of educational administration, and a checklist of key steps to be taken in establishing new junior colleges. The author states that the primary task is defining the institution's goals. The other (ED 014 283) is a report of a national conference jointly sponsored by the University of California, Los Angeles; the American Association of Junior Colleges; and the Commission for Accrediting Junior Colleges of the Western Association of Schools and Colleges. One of the 18 conference papers contains the following guidelines:

1. Plants and facilities must be master-planned.
2. The site, an asset or liability in the selection of plant and facilities, should be selected as objectively and scientifically as possible.
3. The planning of junior college facilities should include the wisest use of the potential contributions and resources of various individuals and groups.
4. Junior college facilities should have an architectural character consistent with the desired image and role of the junior college in the community.
5. Junior college facilities should have an educational character that fits the college's role as the educational and cultural center of the community.
6. Facilities of a junior college must be adaptable to the socioeconomic needs of a community.
7. Facilities must be planned and designed to provide for economical staffing and use.
8. Junior college facilities must be planned and designed for a variety of uses: regular daytime offerings, community service, and part-time and adult programs.

In the same publication, Johnson observes that the time available for planning and starting a junior college is generally too short. At another point, he urges junior colleges to borrow "principles, insights, and procedures ... from varied disciplines and fields of operation entirely outside of education." As an example, Johnson cites Cuyahoga (Ohio) Community College's use of space technology, engineering, and building construction in its establishment.

Researchers at Northern Virginia Technical College found nine major lines of activity and some 300 steps to be accomplished in opening a new junior college (ED 010 020). Under facilities are included: selecting a temporary campus, planning the remodeling of the temporary quarters, taking bids for the construction of a new campus, beginning the construction, inspecting the buildings, and opening the buildings. Of the more than 15,000 man-hours expended by the staff in opening the college, 740 were required for facility planning.

The development of Seattle (Washington) Community College's north and south campuses has been recorded in similar detail in ED 019 051 and ED 019 052, both of which contain educational specifications drawn up by members of 80 to 100 faculty committees aided by a team of consultants. Another publication gives the educational specifications developed by the faculty of Florida's Polk Junior College (ED 010 956).

General rules for planning facilities for new junior colleges can be found in a compilation of ten *Junior College Journal* articles (ED 019 045). Among these are: (1) the involvement of the architect early in the planning process; (2) the establishment by *educators* of the institution's goals and objectives and its needs for facilities, and the creation by *design specialists* of facilities suited to meet such needs; (3) the budgeting of at least .05 per cent of the building costs for analyzing community needs and translating them into educational programs; (4) the selection of a site on the basis of cost, location, size or area, availability of public utilities, and access to major streets; and (5) the consideration in designing a junior college campus of (a) the philosophy, objectives, and specifications of the educational program; (b) the effects of physical environment on learning; and (c) the architectural expression of the junior college's purpose and environment as reflected in the size and location of the buildings, the organization of the campus, the use of construction materials, and the architectural style.

General Construction Guides

Since no two junior colleges can occupy the same site, serve the same population, and have identical educational goals, it is impossible to formulate an ironclad construction guide for all two-year institutions. There are, however, certain common requirements.

Unquestionably, knowledge of state requirements for buildings and site approval are vital to facility planners; otherwise, one might naively select a school site that fails to meet the minimum standards prescribed by law. For example, Wisconsin requires all junior colleges to be constructed on sites of no less than 20 acres — even in urban areas — and Georgia specifies at least 100 acres (ED 022 444). Legal codes are readily available from the respective state capitals. Summaries of relevant regulations, such as one published by the Iowa Department of Public Instruction (ED 018 223), can be obtained from many of the state agencies that control junior colleges.

Merlo's dissertation includes a review of site, space, and construction standards recommended by various authorities and a listing of standards established by each of the 50 states (ED 022 444). He developed a 304-question checklist for evaluating junior college facilities, including: What buildings should be kept apart from the rest of the complex? Should there be certain zones for certain types of buildings (e.g., administrative, instructional, parking) to allow for expansion or addition? What plan (compact, cluster, finger, campus, etc.) is the most desirable for the physical plant of the college? Are enclosed walkways between buildings necessary? What areas on the campus should be fenced? Should building exteriors be illuminated at night?

A selected panel of consultants developed Merlo's checklist by visiting eight sites — three in Michigan (Henry Ford, Kellogg, and Flint) and five in California (El Camino, Mt. San Antonio, Orange Coast, Foothill, and College of San Mateo). The panel concluded that: (1) the minimum full-time enrollment of a comprehensive junior college should be not less than 1,000 students or more than 5,000; (2) the basic buildings should include administrative and guidance centers, classroom and laboratory buildings, a student center, a library, and physical education buildings; (3) the interiors of all buildings should be designed for flexibility, particularly in view of the changing theories of instruction; and (4) each area should have separate heating and air-conditioning controls.

Space Utilization

What steps should be taken by the established junior college in need of additional facilities? Obviously, the college can do one of two things: restrict its enrollment to the current number or add more buildings. According to a study conducted by Educational Facilities Laboratories, colleges could "accommodate 50 per cent more students without new buildings and save $15 million in capital outlay" (ED 015 718). By increased efficiency in the use of space, administrators could alleviate some of the pressures with little facility expansion. The study includes, in workbook form, a room-use survey, a summary of utilization data by kinds of instructional room (by weeks, days, and hours), and a summary of instructional space utilization by size of room.

Innovation and Facility Planning

During the last decade, new techniques of instruction have led to numerous innovative designs in college buildings. Language laboratories, large-group instruction areas, and the deluge of audio-visual materials and techniques have all affected facility design.

Haskell's report (ED 014 970) of forum-type rooms for large-group instruction describes a theoretical model costing about $210,000 and consisting of: 300 student stations equipped with tablet-arm chairs, stereophonic speakers, television receivers, rear-view projection equipment, a television control center, a student-response system, and a speaker's console with tape and record players, AM and FM radio, wireless microphone, and controls for speakers, lights, screen, and projection. The model is designed for a sloping or stepped floor surface.

Dimitry maintains that the "house plan" — a concept dating back to fourteenth century Oxford — could provide junior colleges with orderly growth over a period of years (ED 013 627). For each 1,000 full-time students, an educational house could be built. The houses would be constructed around the campus' focal point, namely administrative offices, library, auditorium and community arts building, college community center, physical education building, and intermediate school district offices. A house itself would include classrooms and most laboratory rooms, faculty offices, guidance and counseling offices, student activities space, student study space, snack bar and cafeteria, and bookstore. As the college's enrollment and resources grow, more houses could be added to the campus. Constructed in a cellular, quadrangular, or circular form, each house would be semi-independent of the parent institution and, in consequence, could alter its curriculum and/or instructional techniques without disrupting the educational program(s) elsewhere on campus.

Summary

Although most of these publications are not strictly research documents, they do give some description of the planning process employed by architects and educators. The process, according to these writers, consists of (1) analyzing the needs for new or additional facilities as determined by the kind of curriculum adopted and the number of students anticipated, and (2) formulating educational specifications with regard to the location, size, and function of each building.

Generally, it may be concluded that there is a trend toward greater simplicity in building design, although the variety of building types has become more diverse (clusters, fingers, etc.). It is commonly agreed that faculty members and architects should both be involved early, if not initially, in the planning process.

If, as prophesied in a special issue of *College and University Business* (October 1967), more than 2,000 additional junior colleges will be built by the end of the twentieth century (ED 017 249), architects and educators must work more wisely and more effectively to select sites and construct facilities to enhance the educational processes in the decades immediately ahead. Junior college personnel and architects should increase their research efforts in: (1) space utilization; (2) site selection and development; (3) the kind and number of facilities needed for the average college; (4) evaluation of existing facilities; (5) management and maintenance of facilities; and (6) incorporation of innovative educational techniques in facilities. Without such data, educational planners cannot hope to provide suitable facilities for tomorrow's junior colleges.

Dale Gaddy

BIBLIOGRAPHY

ED 010 020
Documentation of Steps to Establish a Technical College, and the Evaluation of "PERT" as a Planning Tool for Educators, Phase 1, by Robert L. McKee and Kathryn J. Ripley, Northern Virginia Technical Coll., Baileys Crossroads, March 1966. 101 p. (MF - $0.50; HC - $4.12)

ED 010 956
Educational Specifications for Polk Junior College — Master Campus Plan, June 1965. Polk Junior College, Bartow, Florida, June 1965. 115 p. (MF - $0.50; HC - $4.68)

ED 011 772
Starting a Community Junior College, by B. Lamar Johnson, American Association of Junior Colleges, Washington, D.C., 1964. 102 p. (MF - $0.50; HC - $4.16)

ED 012 182
Systems Approach to Learning, by Jacob H. Wiens, College of San Mateo, California, November 1966. 29 p. (MF - $0.25; HC - $1.24)

ED 013 627
The House Plan in Higher Education and Its Application to the Community College. (Ed.D. Dissertation), by John Randolph Dimitry, Wayne State University, Detroit, Michigan, 1966. 234 p. (Available as document No. 67-654 for $3.05 (MF) or $10.60 (HC) from University Microfilms, Inc., 300 North Zeeb Road, Ann Arbor, Michigan 48103.)

ED 014 283
Establishing Junior Colleges, Report of a National Conference Sponsored by the University of California, Los Angeles, the AAJC, and the Comm. for Accred. Jr. Coll. of the Western Assn. of Schools and Coll. (Los Angeles, July 10-12, 1963.) Occasional Report No. 5, by B. Lamar Johnson, Ed., January 1964. 139 p. (MF - $0.75; HC - $5.64)

ED 014 970
Forum-Type Rooms — An Innovation in Classroom Design and Utilization, by Barry S. Haskell, March 1967. 31 p. (MF - $0.25; HC - $1.32)

ED 015 718
To Build or Not to Build, a Report on the Utilization and Planning of Instructional Facilities in Small Colleges, by John X. Jamrich, March 1962. 76 p. (MF - $0.50; HC - $3.12)

ED 017 228
Premises — Planning Student Personnel Facilities, by Charles C. Collins, 1967. 28 p (MF - $0.25; HC - $1.20)

ED 017 249
Planning the Community College, October 1967. 18 p. (MF - $0.25; HC - $0.80)

ED 018 223
Selected School Laws and Standards — A Summary Containing Specific School Laws Relating to Area Schools and Public Community and Junior Colleges and Standards for Area Vocational Schools and Area Community Colleges, by Robert Yeager, 1968. 42 p. (MF - $0.25; HC - $1.76)

ED 019 045
A Primer for Planners, by Bob H. Reed, 1967. 51 p. (MF - $0.25; HC - $2.12)

ED 019 051
Educational Specifications for the North Campus of Seattle Community College, by C. W. McGuffey and others, Associated Consultants in Education, Tallahassee, Florida, May 1967. 419 p. (MF - $1.75; HC - $16.84)

ED 019 052
Educational Specifications for the South Campus of Seattle Community College, by C. W. McGuffey, Associated Consultants in Education, Tallahassee, Florida, October 1966. 389 p. (MF - $1.50; HC - $15.64)

ED 022 444
A Guide for Developing Comprehensive Community College Facilities (Ed.D. Dissertation), by Frank P. Merlo, Rutgers, The State University, New Brunswick, New Jersey, 1964. 297 p. (Available as document No. 64-11,489 for $3.80 (MF) or $13.30 (HC) from University Microfilms, Inc., 300 North Zeeb Road, Ann Arbor, Michigan 48103.)

Abstracts of documents processed in the ERIC system may be found in *Research in Education*, a publication of the U. S. Department of Health, Education and Welfare. *Research in Education* may be ordered from the Superintendent of Documents, U. S. Government Printing Office, Washington, D.C. 20402.

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